

REMARKS

The Office Action mailed August 9, 2005 has been received and the Examiner's comments carefully reviewed. Claims 18-20 have been allowed. Applicants thank the Examiner for this notification. Claims 1, 3, 4, 15, and 17 have been amended. Claims 21-22 have been added. No new subject matter has been added. Claims 2 and 16 have been cancelled. Claims 1, 3-15, and 17-22 are currently pending. Applicants respectfully submit that the pending claims are in condition for allowance.

Specification Objection

The Examiner objected to the specification for including underlined titles. Applicants have amended the application title and specification headings as requested by the Examiner.

Rejections Under 35 U.S.C. §102

The Examiner rejected claim 1 under 35 U.S.C. §102(e) as being anticipated by Brooks (U.S. Patent 6,524,078). Applicants respectfully traverse this rejection, but have amended claim 1 to advance this application to allowance. Applicants reserve the right to pursue the original subject matter via a continuing application.

Claim 1 has been amended to incorporate the subject matter of objected-to claim 2. Applicants respectfully submit that independent claim 1 is now in condition for allowance.

Rejections Under 35 U.S.C. §103

The Examiner rejected claims 7-9, 13 and 15 under 35 U.S.C. §103(a) as being unpatentable over Brooks (U.S. Patent 6,524,078) in view of Point (U.S. Patent 5,039,286). Applicants respectfully traverse this rejection, but have amended claim 15 to advance this case to allowance.

A. Claim 7

Claim 7 depends upon claim 1. In view of the amendment to independent claim 1, further discussion regarding the patentability of dependent claim 7 is believed to be unnecessary. Applicants submit that dependent claim 7 is now in condition for allowance.

B. Claims 8, 9, and 13

Claim 8 recites an assembly having a rotor and an impeller mounted on first and second ends of a shaft. The rotor has an interconnecting structure and a locking structure located at first and second ends of the rotor. The assembly further includes an end cap mounted at an end of the shaft. The end cap includes locking structure that corresponds to the locking structure of the rotor to prevent rotation of the rotor in a predetermined direction.

Brooks discloses a pump having an impeller 20 and a rotor 40. Brooks does not disclose a rotor having both an interconnecting structure and a locking structure located at first and second ends of the rotor. Rather, the rotor 40 of Brooks has a keyway 48 at one end, but no locking structure at the other end. Instead, the locking structure of Brooks is carried by the impeller 20, not the rotor 40. In particular, the impeller 20 has pegs 25 that contact a detent 60 formed in a pump chamber 10 of the pump housing 1. The pegs 25 of the impeller 20 either deflect or abut the detent 60, depending upon the direction of rotation of the impeller 20. Column 5, lines 23-35.

Where Brooks fails to teach or suggest a rotor having both an interconnecting structure and a locking structure, Point fails to make up for the deficiencies of Brooks. In particular, Point teaches a rotor 7 having surfaces 14 and notches 15 at one end, but no interconnecting structure at the other end.

Further, Applicants respectfully submit that there is no teaching or suggestion in either of the references to modify Brooks to include a rotor having both an interconnecting structure and a locking structure, as doing so would change the principle of operation of Brooks. Modifying Brooks to include surfaces and notches as taught by Point would require significant re-engineering beyond what is obvious to one of skill in the art, and would therefore be based upon impermissible hindsight reconstruction.

At least for these reasons, Applicants respectfully submit that claim 8 is patentable.

C. Claim 15

Claim 15 has been amended to incorporate the subject matter of objected-to claim 16. Applicants respectfully submit that independent claim 15 is now in condition for allowance.

Allowable Subject Matter

Claims 18-20 are allowed. Claims 2-6, 10-12, 14, 16 and 17 are objected-to, but would be allowed if rewritten in independent form incorporating all the limitations of the base claim and any intervening claims. Applicants thank the Examiner for this notification.

Objected-to claim 2 has been cancelled and incorporated into base claim 1. Objected-to claim 16 has been cancelled and incorporated into base claim 15. Objected-to claim 5 has been rewritten in independent form as new claim 21. New claim 22 depends upon claim 21 and recites the subject matter of objected-to claim 6. Applicants respectfully submit that claims 3-6 and 17, and new claims 21 and 22, are now in condition for allowance.

SUMMARY

It is respectfully submitted that each of the presently pending claims (claims 1, 3-15, and 17-22) is in condition for allowance and notification to that effect is requested. The Examiner is invited to contact Applicants' representative at the below-listed telephone number if it is believed that prosecution of this application may be assisted thereby.

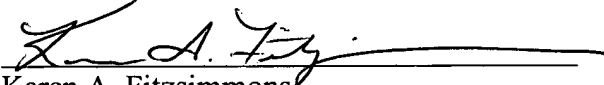
Although certain arguments regarding patentability are set forth herein, there may be other arguments and reasons why the claimed invention is patentably distinct. Applicants reserve the right to raise these arguments in the future.

Respectfully submitted,



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